

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-03900675-2022**

Application Received: **July 21, 2021**

Plant Identification Number: **03-54-039-00675**

Permittee: **GlyEco West Virginia, Inc.**

Facility Name: **Institute Plant**

Mailing Address: **P.O. Box 2393 Charleston, WV 25328**

Physical Location:	Institute, Kanawha County, West Virginia
UTM Coordinates:	432.189 km Easting • 4,284.754 km Northing • Zone 17
Directions:	From I-64, take the Institute exit, turn right onto State Route 25. Plant is located about ½ mile west on Route 25.

Facility Description

The Glycol Recovery Plant processes byproduct ethylene glycol and propylene glycol to remove water and other light boilers and then refines the ethylene glycol and propylene glycol into a final product. Water and other light boilers, including methanol, are separated for reprocessing or sent to the wastewater treatment unit. The final ethylene glycol and propylene glycol product is stored in unit tanks prior to shipment.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2020 Actual Emissions
Carbon Monoxide (CO)	<0.01	0.0
Nitrogen Oxides (NO _x)	<0.01	0.0
Particulate Matter (PM _{2.5})	<0.01	0.0
Particulate Matter (PM ₁₀)	<0.01	0.0
Total Particulate Matter (TSP)	<0.01	<0.01
Sulfur Dioxide (SO ₂)	<0.01	0.0
Volatile Organic Compounds (VOC)	37.59	2.5 ¹
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2020 Actual Emissions
Ethylene Glycol	30	Not reported ¹
Methanol	19.66	Not reported ¹
Diethylene Glycol	0.07	Not reported ¹
2-methyl-1,3-dioxolane	0.44	Not reported ¹
Ethylene Oxide	0.53	Not reported ¹
Total HAPs	50.7	Not reported ¹

Some of the above HAPs may be counted as PM or VOCs.

¹ Individual HAPs were not reported, but were included in the 2020 actual VOC emissions.

Title V Program Applicability Basis

Due to the facility-wide potential to emit over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, GlyEco West Virginia, Inc. - Institute Plant is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Preconstruction permits for minor sources.
	45CSR16	Standards of performance for new stationary sources.
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.

	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. 60, Subpart NNN	Standards of Performance for VOC Emissions from SOCM Distillation Operations
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63, Subparts F, G, H	Hazardous Organic NESHAP (HON)
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR§§21-37 and 40	Control of VOC Emissions
	45CSR27	Best Available Technology (BAT) for HAPs

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-1215	April 24, 1990	
R13-1127	June 26, 1989	
CO-R21-97-41	October 20, 1997	June 14, 2006 letter from J. L. Blatt
CO-R27-99-14-A(92)	March 31, 1999	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

Miscellaneous:

The company name was changed on the cover page from Recovery Solutions & Technologies, Inc. to GlyEco West Virginia, Inc.

[Note: Recovery Solutions & Technologies, Inc. requested a name change from Recovery Solutions & Technologies, Inc. to GlyEco West Virginia, Inc. in a letter dated February 4, 2019. The name change was approved by the director of WVDEP Division of Air Quality in a letter dated February 12, 2019.]

Tanks T1407, T1409, T1410, and T1412 were added to Section 1.0 Emission Units table. These are 10,000 gallon capacity tanks that were installed in the 1940's. According to a letter from Recovery Solutions & Technologies (now GlyEco) dated September 28, 2016, these tanks were transferred from Union Carbide Corporation to Recovery Solutions & Technologies. At the time of transfer, these tanks had no permit requirements. These tanks were removed from Permit R30-03900005-2012 (Group 3 of 5) as requested by Union Carbide Corporation in administrative amendment AA01 issued on September 26, 2016 because they were on the list of assets being transferred to Recovery Solutions & Technologies.

Tank T1416 was added to Section 1.0 Emission Units table. This is a 10,000 gal capacity tank that was installed in 1942. According to a letter from Recovery Solutions & Technologies (now GlyEco) dated September 28, 2016, this tank was transferred from Union Carbide Corporation to Recovery Solutions & Technologies. Tank T1416 was previously permitted in Permit R30-03900005-2011 (Group 1A of 8) AA01 as a Group 2 storage vessel. T1416 was removed from Permit R30-03900675-2017 (went to draft/proposed as R30-03900005-2017 (Group 1A of 8) but was sold and transferred during the comment period) with the reason being that the tank had been removed from service. In addition to being added back to the Section 1.0 Emission Units table, Tank T1416 has also been added back to the list of Group 2 storage vessels in conditions 4.1.5 and 4.4.3.

The applicant requested that tanks T1407, T1409, T1410, and T1412 be listed in the requirements for Group 2 storage vessels. This would allow the facility maximum flexibility in the materials that could be stored in the tanks. This request was denied because this change in operation of the tanks may require a Rule 13 permit review.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

a. 40CFR64 Compliance Assurance Monitoring (CAM)

There has not been the addition of any pollutant-specific emission units that have potential pre-control device emissions of a regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: June 1, 2022
Ending Date: July 1, 2022

Point of Contact

All written comments should be addressed to the following individual and office:

Jonathan Carney
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41247
jonathan.w.carney@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

(Choose) Not applicable.

OR

Describe response to comments that are received and/or document any changes to the final permit from the draft/proposed permit.